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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* YONG C. KIM and HEIN PEKELHARING

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Appeal 2008-3907  
Application 10/613,199  
Technology Center 2800

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Decided: September 18, 2008

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Before CHARLES F. WARREN, TERRY J. OWENS, and  
PETER F. KRATZ, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1, 4, 6 and 9. We have jurisdiction pursuant to 35 U.S.C. § 6.

Appellants' claimed invention is directed to a snap action switch and method of use thereof, wherein the switch includes upper and lower non-snap contacts, and a snap action actuator including a middle snap contact moveable between down and up positions at locations that bring the middle contact against the lower and upper contacts, respectively. The actuator is made to snap the middle contact from a down to an up position when an actuation location on the actuator is depressed beyond a first snap height and to correspondingly snap the middle contact from the up to the down position when the actuation location is permitted to rise to a second snap height. In addition, means are provided for varying the height of one of the non-snap contacts, which structural variation changes one of the snap heights at which the middle contact snaps. According to Appellants, this means-plus-function element refers to screw (136) that is constructed to press down on an outer end of a cantilevered beam (130) on which the upper contact (42) is located. The structure required provides for allowable operation of the screw to cause an adjustment in the height of the non-snap contact (42) and a corresponding fine adjustment to a snap height at which the middle contact snaps. *See* Summary of Claimed Subject Matter filed April 16, 2008<sup>1</sup> (hereinafter Supp. App. Br.), pages 1 and 2 and Appellants' drawing Figure 5.

Claims 4 and 9 are illustrative and reproduced below:

4. A snap action switch comprising:

a frame;

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<sup>1</sup> This filing was acknowledged as being entered and reviewed by the Examiner in a Communication mailed on May 29, 2008.

an operator that is movably mounted in said frame and that has an operator triggering end;

a spring that is mounted in said frame and that has a frame-abutting end coupled to said frame and an operator-abutting end coupled to said operator and urging said operator end upwardly;

upper and lower unsnap contacts mounted on said frame;

a snap action actuator having an actuation location lying immediately below said operator end, to be moved downward by said operator end, said actuator having a trigger leg with a middle snap contact thereon lying between said upper and lower contacts and moveable between a down position against said lower contact and an up position against said upper contact, said actuator constructed to snap said middle contact from said down position to said up position when said actuation location is moved down beyond a first snap height, and to snap said middle contact from said up position to said down position when said actuation location rises beyond a second snap height, comprising;

means for adjusting the position of said upper contact to position said upper contact to higher and lower positions relative to said lower contact, to thereby change the height at which said middle contact snaps down.

9. A method for use with a snap action switch arrangement which includes a frame, an operator that is moveably mounted in the frame, a spring coupled to the operator and frame and biasing the operator in a downward direction, upper and lower unsnap contacts mounted on said frame, and a snap action actuator having an actuation location lying immediately below said operator to be moved downward by said operator, said actuator having a trigger leg with a middle snap contact thereon lying between said upper and lower unsnap contacts and movable between a down position against said lower contact and an up position against said upper contact, said actuator constructed to snap said middle contact from said down position to said up position when said actuation location is moved down beyond a first snap height, and to snap said middle contact from said up position to said down position when said actuation location rises beyond

a second snap height, the method being useful to adjust said second snap height at which said middle contact snaps to said down position, comprising:

adjusting the height of said upper unsnap contact relative to said snap action actuator.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Poling	4,920,240	Apr. 24, 1990
Kautz <sup>2</sup>	5,950,811	Sep. 14, 1999

Claims 1, 4, 6, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kautz in view of Poling.

We reverse the stated rejection for reasons set forth in the Briefs, as further explained below.

It is well settled that the burden of establishing a prima facie case of non-patentability resides with the Patent and Trademark Office (PTO). *See In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

The Examiner has found that Kautz teaches a snap action switch comprising, *inter alia*:

upper and lower nonsnap contacts [18, 25];  
a snap action actuator [22] with an actuation location and tripping leg [Figure 2];  
a middle snap contact [24] on the tripping leg, lying between the upper and lower contacts [Figure 1]; and being moveable

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<sup>2</sup> The Examiner inadvertently listed the wrong U.S. Patent number for Kautz (Ans. 2). This is harmless error as the correct U.S. Patent number for Kautz is provided by the Examiner in the statement of rejection and Appellants recognized the correct evidence being relied upon by the Examiner in rejecting the appealed claims (Ans. 3; App. Br. 3).

between a down position against the lower contact and an up position against the upper contact [Figures 3 - 7]; the actuator being constructed to snap the middle contact from the down position to the up position, when the actuation location is depressed beyond a first snap height [Figures 1, 4, 7; Column 2, lines 65 - 68] and to snap the middle contact from the up position to the down position when the actuation location is allowed to rise beyond a second snap height [Figures 3, 5]; a switch operator [56] with an operator end lying directly over the actuation location [Figures 1,3-7]; a spring [60].  
(Ans. 3-4).

The Examiner acknowledges that Kautz fails to disclose “means for varying height of one of the nonstop contacts, to vary one of the snap heights at which the middle contact snaps” as required by all of the rejected independent claims 1, 4, and 9 (Ans. 4). In this regard, the Examiner turns to Poling for the disclosure of switch non-snap contact height varying structure (Ans. 4; Poling, elements 177 and 179, Fig. 3). According to the Examiner:

[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to have the means for varying height of one of the nonsnap contact, in Kautz et al., as suggested by Poling, in order to adjust the distance between stationary contact and movable contact. This would allow regulation of the switching time of the associated circuits [Column 12, lines 24 - 65]. Regarding Claim 9, the structure of the snap action switch dictates a method of use.  
(Ans. 4).

We are not persuaded that the Examiner has furnished a prima facie case of obviousness for the claimed subject matter by this presentation for several reasons. The Examiner reversibly errs by failing to appropriately

take into account the means-plus-function limitation of each of independent claims 1 and 4 as argued by Appellants (App. Br. 3-6; Reply Br. 1-2; Supp. App. Br. 1-3). In particular, the Examiner has not reasonably established that elements 177 and 179 of Poling, even if they could somehow be combined with the structure of Kautz, would result in structure that includes all of the claimed features including structure corresponding to the “means for varying the height ...” as recited in independent claim 1 or the “means for adjusting position ...” as required by independent claim 4. In this regard, the above-noted limitations as recited in either claim 1 or claim 4 invokes the sixth paragraph of 35 U.S.C. § 112. Hence, the limitations in question in each of these rejected independent claims, when given their broadest reasonable construction as they would be understood by one of ordinary skill in the art, require adjustment structure corresponding to the screw (136) that is constructed to press down on an outer end of a cantilevered beam (130) on which the upper contact (42) is located as referred to by Appellants in their Specification and Drawings (Supp. App. Br. 1-3). The structure required provides for allowable operation of the screw to cause an adjustment in the height of the non-snap contact (42) and a corresponding fine adjustment to a snap height at which the middle contact snaps as described in Appellants’ Specification at page 8, line 14 through page 9, line 14, and as depicted in the drawing figures referred to therein, or the equivalent thereof.

The Examiner has not reasonably articulated how the disparately constructed and arranged non-snap action circuit controlling device and the press fitted stationary calibrating pins (177 and 179) of Poling, which structure operates in a decidedly different manner from the snap action switch of Kautz would have been sought to be combined with the device of

Kautz by one of ordinary skill in the art. Nor has the Examiner reasonably established that, even if such a combination were attempted by an ordinarily skilled artisan, a structure that reasonably corresponds to the claimed switch of Appellants would have resulted with a reasonable expectation of success in achieving the claimed snap action switch structure corresponding to that required by the appealed apparatus claims that adjusts an actuation location for the snap action actuator. In this regard, the Examiner has not made out a plausible case for establishing that the allegedly combinable structure of Kautz and Poling would have led one of ordinary skill in the art to structure that is the same or the equivalent of the structure invoked via the sixth paragraph of 35 U.S.C. § 112 by the means-plus-function limitations recited in rejected independent claims 1 and 4.

Similarly, with respect to the Examiner's rejection of method claim 9, the Examiner has reversibly erred by presenting incomplete and unproven contentions as to the asserted combination of structure from Poling with Kautz dictating "a method of use" corresponding to the method required by claim 9, which method requires middle contact snapping height adjustment (Ans. 4; App. Br. 5-6).

Indeed, a review of the Specification and drawings of Poling directed to a non-snapping action switch and an inspection of the press fitted calibrating pins (177 and 179) thereof as relied upon by the Examiner together with the snapping action switch of Kautz reveals that these two references are drawn to significantly different switch structures. The proposed combination of these disparate structures by the Examiner appears to find no basis in their combined disclosures, much less a teaching directed toward Appellants' claimed structure, as discussed above.



In addition and as to rejected method claim 9, we agree with Appellants that the Examiner also erred in rejecting this latter claim. This is so because the Examiner has not carried the burden of identifying how the combined disclosures of the applied references would “dictate” Appellants’ claimed method (Ans. 4). In particular, we note the Examiner’s conclusive rejection statement seems premised on the notion that all that the method claim 9 requires is a method that would follow from the Examiner’s proposed combination of the structure found in Poling with that of Kautz (Ans. 4). However, the mere expression of this conclusion does not make out a sustainable *prima facie* case of obviousness where, as here, Appellants traverse that holding by asserting that the so rejected claims require a different method than a method that would be realized by carrying out a method with the apparatus of Kautz taken together with Poling (App. Br. 5-6).

Rejections based on § 103(a) must rest on a factual basis with the facts being interpreted without hindsight reconstruction of the invention from the prior art. *See In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). In other words, the Examiner’s basis for the rejection falls short of identifying a rationale that would have led an ordinarily skilled artisan to combine selected features from each reference in a way that would have resulted in a method corresponding to the claimed method. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741 (2007).

It follows that we reverse the Examiner’s obviousness rejection, on this record.

ORDER

The decision of the Examiner to reject claims 1, 4, 6, and 9 under 35 U.S.C. § 103(a) as being unpatentable over Kautz in view of Poling is reversed.

REVERSED

PL  
sld

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